(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
28 December 2000 (28.12.2000)

PCT

(10) International Publication Number
WO 00/78952 A3

(51) International Patent Classification[7]: C12N 15/12, 5/10, C07K 14/47, C12N 15/00, A01K 67/027, C12Q 1/68, C07K 16/18, A61K 38/00

(21) International Application Number: PCT/US00/16644

(22) International Filing Date: 15 June 2000 (15.06.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/139,922 17 June 1999 (17.06.1999) US

(63) Related by continuation (CON) or continuation-in-part (CIP) to earlier application:
US 60/139,922 (CIP)
Filed on 17 June 1999 (17.06.1999)

(71) Applicants *(for all designated States except US)*: **INCYTE GENOMICS, INC.** [US/US]; 3160 Porter Drive, Palo Alto, CA 94304 (US). **BAUGHN, Mariah, R.** [US/US]; 14244 Santiago Road, San Leandro, CA 94577 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **BANDMAN, Olga** [US/US]; 366 Anna Avenue, Mountain View, CA 94043 (US). **YUE, Henry** [US/US]; 826 Lois Avenue, Sunnyvale, CA 94087 (US). **LAL, Preeti** [IN/US]; 2382 Lass Drive, Santa Clara, CA 95054 (US). **TANG, Y., Tom** [CN/US]; 4230 Ranwick Court, San Jose, CA 95118 (US). **REDDY, Roopa** [IN/US]; 1233 W. McKinley Avenue #3, Sunnyvale, CA 94086 (US). **AZIMZAI, Yalda** [US/US]; 2045 Rock Springs Drive, Hayward, CA 94545 (US).

(74) Agents: **HAMLET-COX, Diana** et al.; Incyte Genomics, Inc., 3160 Porter Drive, Palo Alto, CA 94304 (US).

(81) Designated States *(national)*: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report*

(88) Date of publication of the international search report:
17 January 2002

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 00/78952 A3

(54) Title: HUMAN RNA METABOLISM PROTEINS (RMEP)

(57) Abstract: The invention provides human RNA metabolism proteins (RMEP) and polynucleotides which identify and encode RMEP. The invention also provides expression vectors, host cells, antibodies, agonists, and antagonists. The invention also provides methods for diagnosing, treating, or preventing disorders associated with expresssion of RMEP.

SEQUENCE LISTING

<110> INCYTE GENOMICS, INC.
BANDMAN, Olga
YUE, Henry
LAL, Preeti
TANG, Y. Tom
REDDY, Roopa
BAUGHN, Mariah R.
AZIMZAI, Yalda

<120> RNA METABOLISM PROTEINS

<130> PF-0712 PCT

<140> To Be Assigned
<141> Herewith

<150> 60/139,922
<151> 1999-06-17

<160> 26

<170> PERL Program

<210> 1
<211> 503
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte Clone No: 046926

<400> 1

```
Met Glu Tyr Met Ala Glu Ser Thr Asp Arg Ser Pro Gly His Ile
  1               5                  10                  15
Leu Cys Cys Glu Cys Gly Val Pro Ile Ser Pro Asn Pro Ala Asn
                20                  25                  30
Ile Cys Val Ala Cys Leu Arg Ser Lys Val Asp Ile Ser Gln Gly
                35                  40                  45
Ile Pro Lys Gln Val Ser Ile Ser Phe Cys Lys Gln Cys Gln Arg
                50                  55                  60
Tyr Phe Gln Pro Pro Gly Thr Trp Ile Gln Cys Ala Leu Glu Ser
                65                  70                  75
Arg Glu Leu Leu Ala Leu Cys Leu Lys Lys Ile Lys Ala Pro Leu
                80                  85                  90
Ser Lys Val Arg Leu Val Asp Ala Gly Phe Val Trp Thr Glu Pro
                95                 100                 105
His Ser Lys Arg Leu Lys Val Lys Leu Thr Ile Gln Lys Glu Val
               110                 115                 120
Met Asn Gly Ala Ile Leu Gln Gln Val Phe Val Val Asp Tyr Val
               125                 130                 135
Val Gln Ser Gln Met Cys Gly Asp Cys His Arg Val Glu Ala Lys
               140                 145                 150
Asp Phe Trp Lys Ala Val Ile Gln Val Arg Gln Lys Thr Leu His
               155                 160                 165
```

```
Lys Lys Thr Phe Tyr Tyr Leu Glu Gln Leu Ile Leu Lys Tyr Gly
                170                 175                 180
Met His Gln Asn Thr Leu Arg Ile Lys Glu Ile His Asp Gly Leu
                185                 190                 195
Asp Phe Tyr Tyr Ser Ser Lys Gln His Ala Gln Lys Met Val Glu
                200                 205                 210
Phe Leu Gln Cys Thr Val Pro Cys Arg Tyr Lys Ala Ser Gln Arg
                215                 220                 225
Leu Ile Ser Gln Asp Ile His Ser Asn Thr Tyr Asn Tyr Lys Ser
                230                 235                 240
Thr Phe Ser Val Glu Ile Val Pro Ile Cys Lys Asp Asn Val Val
                245                 250                 255
Cys Leu Ser Pro Lys Leu Ala Gln Ser Leu Gly Asn Met Asn Gln
                260                 265                 270
Ile Cys Val Cys Ile Arg Val Thr Ser Ala Ile His Leu Ile Asp
                275                 280                 285
Pro Asn Thr Leu Gln Val Ala Asp Ile Asp Gly Ser Thr Phe Trp
                290                 295                 300
Ser His Pro Phe Asn Ser Leu Cys His Pro Lys Gln Leu Glu Glu
                305                 310                 315
Phe Ile Val Met Glu Cys Ser Ile Val Gln Asp Ile Lys Arg Ala
                320                 325                 330
Ala Gly Ala Gly Met Ile Ser Lys Lys His Thr Leu Gly Glu Val
                335                 340                 345
Trp Val Gln Lys Thr Ser Glu Met Asn Thr Asp Lys Gln Tyr Phe
                350                 355                 360
Cys Arg Thr His Leu Gly His Leu Leu Asn Pro Gly Asp Leu Val
                365                 370                 375
Leu Gly Phe Asp Leu Ala Asn Cys Asn Leu Asn Asp Glu His Val
                380                 385                 390
Asn Lys Met Asn Ser Asp Arg Val Pro Asp Val Val Leu Ile Lys
                395                 400                 405
Lys Ser Tyr Asp Arg Thr Lys Arg Gln Arg Arg Arg Asn Trp Lys
                410                 415                 420
Leu Lys Glu Leu Ala Arg Glu Arg Glu Asn Met Asp Thr Asp Asp
                425                 430                 435
Glu Arg Gln Tyr Gln Asp Phe Leu Glu Asp Leu Glu Glu Asp Glu
                440                 445                 450
Ala Ile Arg Lys Asn Val Asn Ile Tyr Arg Asp Ser Ala Ile Pro
                455                 460                 465
Val Glu Ser Asp Thr Asp Asp Glu Gly Ala Pro Arg Ile Ser Leu
                470                 475                 480
Ala Glu Met Leu Glu Asp Leu His Ile Ser Gln Asp Ala Thr Gly
                485                 490                 495
Glu Glu Gly Ala Ser Met Leu Thr
                500
```

<210> 2
<211> 594
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte Clone No: 618791

<400> 2

```
Met Ser Ala Gly Glu Val Glu Arg Leu Val Ser Glu Leu Ser Gly
 1               5                  10                  15
Gly Thr Gly Gly Asp Glu Glu Glu Glu Trp Leu Tyr Gly Gly Pro
            20                  25                  30
Trp Asp Val His Val His Ser Asp Leu Ala Lys Asp Leu Asp Glu
        35                  40                  45
Asn Glu Val Glu Arg Pro Glu Glu Glu Asn Ala Ser Ala Asn Pro
    50                  55                  60
Pro Ser Gly Ile Glu Asp Glu Thr Ala Glu Asn Gly Val Pro Lys
65                  70                  75
Pro Lys Val Thr Glu Thr Glu Asp Asp Ser Asp Ser Asp Ser Asp
                80                  85                  90
Asp Asp Glu Asp Asp Val His Val Thr Ile Gly Asp Ile Lys Thr
            95                  100                 105
Gly Ala Pro Gln Tyr Gly Ser Tyr Gly Thr Ala Pro Val Asn Leu
        110                 115                 120
Asn Ile Lys Thr Gly Gly Arg Val Tyr Gly Thr Thr Gly Thr Lys
    125                 130                 135
Val Lys Gly Val Asp Leu Asp Ala Pro Gly Ser Ile Asn Gly Val
140                 145                 150
Pro Leu Leu Glu Val Asp Leu Asp Ser Phe Glu Asp Lys Pro Trp
155                 160                 165
Arg Lys Pro Gly Ala Asp Leu Ser Asp Tyr Phe Asn Tyr Gly Phe
            170                 175                 180
Asn Glu Asp Thr Trp Lys Ala Tyr Cys Glu Lys Gln Lys Arg Ile
        185                 190                 195
Arg Met Gly Leu Glu Val Ile Pro Val Thr Ser Thr Thr Asn Lys
    200                 205                 210
Ile Thr Ala Glu Asp Cys Thr Met Glu Val Thr Pro Gly Ala Glu
215                 220                 225
Ile Gln Asp Gly Arg Phe Asn Leu Phe Lys Val Gln Gln Gly Arg
230                 235                 240
Thr Gly Asn Ser Glu Lys Glu Thr Ala Leu Pro Ser Thr Lys Ala
245                 250                 255
Glu Phe Thr Ser Pro Pro Ser Leu Phe Lys Thr Gly Leu Pro Pro
            260                 265                 270
Ser Arg Asn Ser Thr Ser Ser Gln Ser Gln Thr Ser Thr Ala Ser
        275                 280                 285
Arg Lys Ala Asn Ser Ser Val Gly Lys Trp Gln Asp Arg Tyr Gly
    290                 295                 300
Arg Ala Glu Ser Pro Asp Leu Arg Arg Leu Pro Gly Ala Ile Asp
305                 310                 315
Val Ile Gly Gln Thr Ile Thr Ile Ser Arg Val Glu Gly Arg Arg
320                 325                 330
Arg Ala Asn Glu Asn Ser Asn Ile Gln Val Leu Ser Glu Arg Ser
335                 340                 345
Ala Thr Glu Val Asp Asn Asn Phe Ser Lys Pro Pro Pro Phe Phe
350                 355                 360
Pro Pro Gly Ala Pro Pro Thr His Leu Pro Pro Pro Pro Phe Leu
365                 370                 375
Pro Pro Pro Pro Thr Val Ser Thr Ala Pro Pro Leu Ile Pro Pro
380                 385                 390
Pro Gly Phe Pro Pro Pro Pro Gly Ala Pro Pro Pro Ser Leu Ile
395                 400                 405
Pro Thr Ile Glu Ser Gly His Ser Ser Gly Tyr Asp Ser Arg Ser
410                 415                 420
Ala Arg Ala Phe Pro Tyr Gly Asn Val Ala Phe Pro His Leu Pro
425                 430                 435
Gly Ser Ala Pro Ser Trp Pro Ser Leu Val Asp Thr Ser Lys Gln
440                 445                 450
Trp Asp Tyr Tyr Ala Arg Arg Glu Lys Asp Arg Asp Arg Glu Arg
```

```
                455                 460                 465
Asp Arg Asp Arg Glu Arg Asp Arg Asp Arg Asp Arg Glu Arg Glu
                470                 475                 480
Arg Thr Arg Glu Arg Glu Arg Glu Arg Asp His Ser Pro Thr Pro
                485                 490                 495
Ser Val Phe Asn Ser Asp Glu Glu Arg Tyr Arg Tyr Arg Glu Tyr
                500                 505                 510
Ala Glu Arg Gly Tyr Glu Arg His Arg Ala Ser Arg Glu Lys Glu
                515                 520                 525
Glu Arg His Arg Glu Arg Arg His Arg Glu Lys Glu Glu Thr Arg
                530                 535                 540
His Lys Ser Ser Arg Ser Asn Ser Arg Arg Arg His Glu Ser Glu
                545                 550                 555
Glu Gly Asp Ser His Arg Arg His Lys His Lys Lys Ser Lys Arg
                560                 565                 570
Ser Lys Glu Gly Lys Glu Ala Gly Ser Glu Pro Ala Pro Glu Gln
                575                 580                 585
Glu Ser Thr Glu Ala Thr Pro Ala Glu
                590
```

<210> 3
<211> 413
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte Clone No: 1240366

<400> 3

```
Met Ser Glu Thr Gln Tyr Ser Ser Leu Thr Gln Thr Leu Ile Met
  1                 5                  10                  15
Thr Met Lys Leu Ser Gly Phe Gly Val Ala Asp Ser Met Arg Ile
                 20                  25                  30
Ser Gly Cys Ser Ile Gln Lys Gln Ser Arg Ile Ile Ile Thr Asp
                 35                  40                  45
Arg Gln Ala Glu Pro Pro Lys Lys Glu Ala Ala Thr Thr Gly Pro
                 50                  55                  60
Gln Val Lys Arg Ala Asp Glu Trp Lys Asp Pro Trp Arg Arg Ser
                 65                  70                  75
Lys Ser Pro Lys Lys Lys Leu Gly Val Ser Val Ser Pro Ser Arg
                 80                  85                  90
Ala Arg Arg Arg Arg Lys Thr Ser Ala Ser Ser Ala Ser Ala Ser
                 95                 100                 105
Asn Ser Ser Arg Ser Ser Ser Arg Ser Ser Ser Tyr Ser Gly Ser
                110                 115                 120
Gly Ser Ser Arg Ser Arg Ser Arg Ser Ser Ser Tyr Ser Ser Tyr
                125                 130                 135
Ser Ser Arg Ser Ser Arg His Ser Ser Phe Ser Gly Ser Arg Ser
                140                 145                 150
Arg Ser Arg Ser Phe Ser Ser Ser Pro Ser Pro Ser Pro Thr Pro
                155                 160                 165
Ser Pro His Arg Pro Ser Ile Arg Thr Lys Gly Glu Pro Ala Pro
                170                 175                 180
Pro Pro Gly Lys Ala Gly Glu Lys Ser Val Lys Lys Pro Ala Pro
                185                 190                 195
Pro Pro Ala Pro Pro Gln Ala Thr Lys Thr Thr Ala Pro Val Pro
```

```
                200                 205                 210
Glu Pro Thr Lys Pro Gly Asp Pro Arg Glu Ala Arg Arg Lys Glu
                215                 220                 225
Arg Pro Ala Arg Thr Pro Pro Arg Arg Arg Thr Leu Ser Gly Ser
                230                 235                 240
Gly Ser Gly Ser Gly Ser Ser Tyr Ser Gly Ser Ser Ser Arg Ser
                245                 250                 255
Arg Ser Leu Ser Val Ser Ser Val Ser Ser Val Ser Ser Ala Thr
                260                 265                 270
Ser Ser Ser Ser Ser Ala His Ser Val Asp Ser Glu Asp Met Tyr
                275                 280                 285
Ala Asp Leu Ala Ser Pro Val Ser Ser Ala Ser Ser Arg Ser Pro
                290                 295                 300
Ala Pro Ala Gln Thr Arg Lys Glu Lys Gly Lys Ser Lys Lys Glu
                305                 310                 315
Asp Gly Val Lys Glu Glu Lys Arg Lys Arg Asp Ser Ser Thr Gln
                320                 325                 330
Pro Pro Lys Ser Ala Lys Pro Pro Ala Gly Gly Lys Ser Ser Gln
                335                 340                 345
Gln Pro Ser Thr Pro Gln Gln Ala Pro Pro Gly Gln Pro Gln Gln
                350                 355                 360
Gly Thr Phe Val Ala His Lys Glu Ile Lys Leu Thr Leu Leu Asn
                365                 370                 375
Lys Ala Ala Asp Lys Gly Ser Arg Lys Arg Tyr Glu Pro Ser Asp
                380                 385                 390
Lys Asp Arg Gln Ser Pro Pro Pro Ala Lys Arg Pro Asn Thr Ser
                395                 400                 405
Pro Asp Arg Gly Ser Arg Asp Arg
                410
```

<210> 4
<211> 219
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte Clone No: 1295773

```
<400> 4
Met His Val Gln Leu Ser Thr Ser Arg Leu Arg Thr Ala Pro Gly
  1                 5                  10                  15
Met Gly Asp Gln Ser Gly Cys Tyr Arg Cys Gly Lys Glu Gly His
                 20                  25                  30
Trp Ser Lys Glu Cys Pro Val Asp Arg Thr Gly Arg Val Ala Asp
                 35                  40                  45
Phe Thr Glu Gln Tyr Asn Glu Gln Tyr Gly Ala Val Arg Thr Pro
                 50                  55                  60
Tyr Thr Met Gly Tyr Gly Glu Ser Met Tyr Tyr Asn Asp Ala Tyr
                 65                  70                  75
Gly Ala Leu Asp Tyr Tyr Lys Arg Tyr Arg Val Arg Ser Tyr Glu
                 80                  85                  90
Ala Val Ala Ala Ala Ala Ala Ala Ser Ala Tyr Asn Tyr Ala Glu
                 95                 100                 105
Gln Thr Met Ser His Leu Pro Gln Val Gln Ser Thr Thr Val Thr
                110                 115                 120
Ser His Leu Asn Ser Thr Ser Val Asp Pro Tyr Asp Arg His Leu
                125                 130                 135
```

```
Leu Pro Asn Ser Gly Ala Ala Ala Thr Ser Ala Ala Met Ala Ala
                140                 145                 150
Ala Ala Ala Thr Thr Ser Ser Tyr Tyr Gly Arg Asp Arg Ser Pro
                155                 160                 165
Leu Arg Arg Ala Ala Ala Met Leu Pro Thr Val Gly Glu Gly Tyr
                170                 175                 180
Gly Tyr Gly Pro Glu Ser Glu Leu Ser Gln Ala Ser Ala Ala Thr
                185                 190                 195
Arg Asn Ser Leu Tyr Asp Met Ala Arg Tyr Glu Arg Glu Gln Tyr
                200                 205                 210
Val Asp Arg Ala Arg Tyr Ser Ala Phe
                215
```

<210> 5
<211> 641
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte Clone No: 1858421

<400> 5

```
Met Gly Arg Arg Ser Thr Ser Ser Thr Lys Ser Gly Lys Phe Met
  1               5                  10                  15
Asn Pro Thr Asp Gln Ala Arg Lys Glu Ala Arg Lys Arg Glu Leu
                20                  25                  30
Lys Lys Asn Lys Lys Gln Arg Met Met Val Arg Ala Ala Val Leu
                35                  40                  45
Lys Met Lys Asp Pro Lys Gln Ile Ile Arg Asp Met Glu Lys Leu
                50                  55                  60
Asp Glu Met Glu Phe Asn Pro Val Gln Gln Pro Gln Leu Asn Glu
                65                  70                  75
Lys Val Leu Lys Asp Lys Arg Lys Lys Leu Arg Glu Thr Phe Glu
                80                  85                  90
Arg Ile Leu Arg Leu Tyr Glu Lys Glu Asn Pro Asp Ile Tyr Lys
                95                 100                 105
Glu Leu Arg Lys Leu Glu Val Glu Tyr Glu Gln Lys Arg Ala Gln
                110                 115                 120
Leu Ser Gln Tyr Phe Asp Ala Val Lys Asn Ala Gln His Val Glu
                125                 130                 135
Val Glu Ser Ile Pro Leu Pro Asp Met Pro His Ala Pro Ser Asn
                140                 145                 150
Ile Leu Ile Gln Asp Ile Pro Leu Pro Gly Ala Gln Pro Pro Ser
                155                 160                 165
Ile Leu Lys Lys Thr Ser Ala Tyr Gly Pro Pro Thr Arg Ala Val
                170                 175                 180
Ser Ile Leu Pro Leu Leu Gly His Gly Val Pro Arg Leu Pro Pro
                185                 190                 195
Gly Arg Lys Pro Pro Gly Pro Pro Pro Gly Pro Pro Pro Pro Gln
                200                 205                 210
Val Val Gln Met Tyr Gly Arg Lys Val Gly Phe Ala Leu Asp Leu
                215                 220                 225
Pro Pro Arg Arg Arg Asp Glu Asp Met Leu Tyr Ser Pro Glu Leu
                230                 235                 240
Ala Gln Arg Gly His Asp Asp Asp Val Ser Ser Thr Ser Glu Asp
                245                 250                 255
Asp Gly Tyr Pro Glu Asp Met Asp Gln Asp Lys His Asp Asp Ser
```

```
                260                 265                 270
Thr Asp Asp Ser Asp Thr Asp Lys Ser Asp Gly Glu Ser Asp Gly
            275                 280                 285
Asp Glu Phe Val His Arg Asp Asn Gly Glu Arg Asp Asn Asn Glu
        290                 295                 300
Glu Lys Lys Ser Gly Leu Ser Val Arg Phe Ala Asp Met Pro Gly
    305                 310                 315
Lys Ser Arg Lys Lys Lys Lys Asn Met Lys Glu Leu Thr Pro Leu
                320                 325                 330
Gln Ala Met Met Leu Arg Met Ala Gly Gln Glu Ile Pro Glu Glu
            335                 340                 345
Gly Arg Glu Val Glu Glu Phe Ser Glu Asp Asp Asp Glu Asp Asp
        350                 355                 360
Ser Asp Asp Ser Glu Ala Glu Lys Gln Ser Gln Lys Gln His Lys
    365                 370                 375
Glu Glu Ser His Ser Asp Gly Thr Ser Thr Ala Ser Ser Gln Gln
                380                 385                 390
Gln Ala Pro Pro Gln Ser Val Pro Pro Ser Gln Ile Gln Ala Pro
            395                 400                 405
Pro Met Pro Gly Pro Pro Pro Leu Gly Pro Pro Pro Ala Pro Pro
        410                 415                 420
Leu Arg Pro Pro Gly Pro Pro Thr Gly Leu Pro Pro Gly Pro Pro
    425                 430                 435
Pro Gly Ala Pro Pro Phe Leu Arg Pro Pro Gly Met Pro Gly Leu
                440                 445                 450
Arg Gly Pro Leu Pro Arg Leu Leu Pro Pro Gly Pro Pro Pro Gly
            455                 460                 465
Arg Pro Pro Gly Pro Pro Pro Gly Pro Pro Pro Gly Leu Pro Pro
        470                 475                 480
Gly Pro Pro Pro Arg Gly Pro Pro Pro Arg Leu Pro Pro Pro Ala
    485                 490                 495
Pro Pro Gly Ile Pro Pro Pro Arg Pro Gly Met Met Arg Pro Pro
                500                 505                 510
Leu Val Pro Pro Leu Gly Pro Ala Pro Pro Gly Leu Phe Pro Pro
            515                 520                 525
Ala Pro Leu Pro Asn Pro Gly Val Leu Ser Ala Pro Pro Asn Leu
        530                 535                 540
Ile Gln Arg Pro Lys Ala Asp Asp Thr Ser Ala Ala Thr Ile Glu
    545                 550                 555
Lys Lys Ala Thr Ala Thr Ile Ser Ala Lys Pro Gln Ile Thr Asn
                560                 565                 570
Pro Lys Ala Glu Ile Thr Arg Phe Val Pro Thr Ala Leu Arg Val
            575                 580                 585
Arg Arg Glu Asn Lys Gly Ala Thr Ala Ala Pro Gln Arg Lys Ser
        590                 595                 600
Glu Asp Asp Ser Ala Val Pro Leu Ala Lys Ala Ala Pro Lys Ser
    605                 610                 615
Gly Pro Ser Val Pro Val Ser Val Gln Thr Lys Asp Asp Val Tyr
                620                 625                 630
Glu Ala Phe Met Lys Glu Met Glu Gly Leu Leu
            635                 640
```

<210> 6
<211> 153
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte Clone No: 2152431

<400> 6
Met Ala Asp Glu Ile Asp Phe Thr Thr Gly Asp Ala Gly Ala Ser
1 5 10 15
Ser Thr Tyr Pro Met Gln Cys Ser Ala Leu Arg Lys Asn Gly Phe
20 25 30
Val Val Leu Lys Gly Arg Pro Cys Lys Ile Val Glu Met Ser Thr
35 40 45
Ser Lys Thr Gly Lys His Gly His Ala Lys Val His Leu Val Gly
50 55 60
Ile Asp Ile Phe Thr Gly Lys Lys Tyr Glu Asp Ile Cys Pro Ser
65 70 75
Thr His Asn Met Asp Val Pro Asn Ile Lys Arg Asn Asp Tyr Gln
80 85 90
Leu Ile Cys Ile Gln Asp Gly Tyr Leu Ser Leu Leu Thr Glu Thr
95 100 105
Gly Glu Val Arg Glu Asp Leu Lys Leu Pro Glu Gly Glu Leu Gly
110 115 120
Lys Glu Ile Glu Gly Lys Tyr Asn Ala Gly Glu Asp Val Gln Val
125 130 135
Ser Val Met Cys Ala Met Ser Glu Glu Tyr Ala Val Ala Ile Lys
140 145 150
Pro Cys Lys

<210> 7
<211> 194
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte Clone No: 2641494

<400> 7
Met Gln Ala Val Arg Asn Ala Gly Ser Arg Phe Leu Arg Ser Trp
1 5 10 15
Thr Trp Pro Gln Thr Ala Gly Arg Val Val Ala Arg Thr Pro Ala
20 25 30
Gly Thr Ile Cys Thr Gly Ala Arg Gln Leu Gln Asp Ala Ala Ala
35 40 45
Lys Gln Lys Val Glu Gln Asn Ala Ala Pro Ser His Thr Lys Phe
50 55 60
Ser Ile Tyr Pro Pro Ile Pro Gly Glu Glu Ser Ser Leu Arg Trp
65 70 75
Ala Gly Lys Lys Phe Glu Glu Ile Pro Ile Ala His Ile Lys Ala
80 85 90
Ser His Asn Asn Thr Gln Ile Gln Val Val Ser Ala Ser Asn Glu
95 100 105
Pro Leu Ala Phe Ala Ser Cys Gly Thr Glu Gly Phe Arg Asn Ala
110 115 120
Lys Lys Gly Thr Gly Ile Ala Ala Gln Thr Ala Gly Ile Ala Ala
125 130 135
Ala Ala Arg Ala Lys Gln Lys Gly Val Ile His Ile Arg Val Val
140 145 150
Val Lys Gly Leu Gly Pro Gly Arg Leu Ser Ala Met His Gly Leu

```
                155                 160                 165
Ile Met Gly Gly Leu Glu Val Ile Ser Ile Thr Asp Asn Thr Pro
                170                 175                 180
Ile Pro His Asn Gly Cys Arg Pro Arg Lys Ala Arg Lys Leu
                185                 190
```

<210> 8
<211> 629
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte Clone No: 3803409

<400> 8

```
Met Gly Lys Pro Pro Gly Ser Ile Val Arg Pro Ser Ala Pro Pro
  1               5                  10                  15
Ala Arg Ser Ser Val Pro Val Thr Arg Pro Pro Val Pro Ile Pro
             20                  25                  30
Pro Pro Pro Pro Pro Pro Pro Leu Pro Pro Pro Pro Pro Val Ile
             35                  40                  45
Lys Pro Gln Thr Ser Ala Val Glu Gln Glu Arg Trp Asp Glu Asp
             50                  55                  60
Ser Phe Tyr Gly Leu Trp Asp Thr Asn Asp Glu Gln Gly Leu Asn
             65                  70                  75
Ser Glu Phe Lys Ser Glu Thr Ala Ala Ile Pro Ser Ala Pro Val
             80                  85                  90
Leu Pro Pro Pro Pro Val His Ser Ser Ile Pro Pro Pro Gly Pro
             95                 100                 105
Val Pro Met Gly Met Pro Pro Met Ser Lys Pro Pro Pro Val Gln
            110                 115                 120
Gln Thr Val Asp Tyr Gly His Gly Arg Asp Ile Ser Thr Asn Lys
            125                 130                 135
Val Glu Gln Ile Pro Tyr Gly Glu Arg Ile Thr Leu Arg Pro Asp
            140                 145                 150
Pro Leu Pro Glu Arg Ser Thr Phe Glu Thr Glu His Ala Gly Gln
            155                 160                 165
Arg Asp Arg Tyr Asp Arg Glu Arg Asp Arg Glu Pro Tyr Phe Asp
            170                 175                 180
Arg Gln Ser Asn Val Ile Ala Asp His Arg Asp Phe Lys Arg Asp
            185                 190                 195
Arg Glu Thr His Arg Asp Arg Asp Arg Asp Arg Gly Val Ile Asp
            200                 205                 210
Tyr Asp Arg Asp Arg Phe Asp Arg Glu Arg Arg Pro Arg Asp Asp
            215                 220                 225
Arg Ala Gln Ser Tyr Arg Asp Lys Lys Asp His Ser Ser Ser Arg
            230                 235                 240
Arg Gly Gly Phe Asp Arg Pro Ser Tyr Asp Arg Lys Ser Asp Arg
            245                 250                 255
Pro Val Tyr Glu Gly Pro Ser Met Phe Gly Gly Glu Arg Arg Thr
            260                 265                 270
Tyr Pro Glu Glu Arg Met Pro Leu Pro Ala Pro Ser Leu Ser His
            275                 280                 285
Gln Pro Pro Pro Ala Pro Arg Val Glu Lys Lys Pro Glu Ser Lys
            290                 295                 300
Asn Val Asp Asp Ile Leu Lys Pro Pro Gly Arg Glu Ser Arg Pro
            305                 310                 315
```

```
Glu Arg Ile Val Val Ile Met Arg Gly Leu Pro Gly Ser Gly Lys
                320                 325                 330
Thr His Val Ala Lys Leu Ile Arg Asp Lys Glu Val Glu Phe Gly
                335                 340                 345
Gly Pro Ala Pro Arg Val Leu Ser Leu Asp Asp Tyr Phe Ile Thr
                350                 355                 360
Glu Val Glu Lys Glu Glu Lys Asp Pro Asp Ser Gly Lys Lys Val
                365                 370                 375
Lys Lys Lys Val Met Glu Tyr Glu Tyr Glu Ala Glu Met Glu Glu
                380                 385                 390
Thr Tyr Arg Thr Ser Met Phe Lys Thr Phe Lys Lys Thr Leu Asp
                395                 400                 405
Asp Gly Phe Phe Pro Phe Ile Ile Leu Asp Ala Ile Asn Asp Arg
                410                 415                 420
Val Arg His Phe Asp Gln Phe Trp Ser Ala Ala Lys Thr Lys Gly
                425                 430                 435
Phe Glu Val Tyr Leu Ala Glu Met Ser Ala Asp Asn Gln Thr Cys
                440                 445                 450
Gly Lys Arg Asn Ile His Gly Arg Lys Leu Lys Glu Ile Asn Lys
                455                 460                 465
Met Ala Asp His Trp Glu Thr Ala Pro Arg His Met Met Arg Leu
                470                 475                 480
Asp Ile Arg Ser Leu Leu Gln Asp Ala Ala Ile Glu Glu Val Glu
                485                 490                 495
Met Glu Asp Phe Asp Ala Asn Ile Glu Glu Gln Lys Glu Glu Lys
                500                 505                 510
Lys Asp Ala Glu Glu Glu Glu Ser Glu Leu Gly Tyr Ile Pro Lys
                515                 520                 525
Ser Lys Trp Glu Met Asp Thr Ser Glu Ala Lys Leu Asp Lys Leu
                530                 535                 540
Asp Gly Leu Arg Thr Gly Thr Lys Arg Lys Arg Asp Trp Glu Ala
                545                 550                 555
Ile Ala Ser Arg Met Glu Asp Tyr Leu Gln Leu Pro Asp Asp Tyr
                560                 565                 570
Asp Thr Arg Ala Ser Glu Pro Gly Lys Lys Arg Val Arg Trp Ala
                575                 580                 585
Asp Leu Glu Glu Lys Lys Asp Ala Asp Arg Lys Arg Ala Ile Gly
                590                 595                 600
Phe Val Val Gly Gln Thr Asp Trp Glu Lys Ile Thr Asp Glu Ser
                605                 610                 615
Gly His Leu Ala Glu Lys Ala Leu Asn Arg Thr Lys Tyr Ile
                620                 625
```

<210> 9
<211> 445
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte Clone No: 3979009

<400> 9

```
Met Asn Arg His Leu Cys Val Trp Leu Phe Arg His Pro Ser Leu
  1               5                  10                  15
Asn Gly Tyr Leu Gln Cys His Ile Gln Leu His Ser His Gln Phe
             20                  25                  30
Arg Gln Ile His Leu Asp Thr Arg Leu Gln Val Phe Arg Gln Asn
```

```
                35                  40                  45
Arg Asn Cys Ile Leu His Leu Leu Ser Lys Asn Trp Ser Arg Arg
            50                  55                  60
Tyr Cys His Gln Asp Thr Lys Met Leu Trp Lys His Lys Ala Leu
        65                  70                  75
Gln Lys Tyr Met Glu Asn Leu Ser Lys Glu Tyr Gln Thr Leu Glu
                80                  85                  90
Gln Cys Leu Gln His Ile Pro Val Asn Glu Glu Asn Arg Arg Ser
            95                  100                 105
Leu Asn Arg Arg His Ala Glu Leu Ala Pro Leu Ala Ala Ile Tyr
        110                 115                 120
Gln Glu Ile Gln Glu Thr Glu Gln Ala Ile Glu Glu Leu Glu Ser
    125                 130                 135
Met Cys Lys Ser Leu Asn Lys Gln Asp Glu Lys Gln Leu Gln Glu
140                 145                 150
Leu Ala Leu Glu Glu Arg Gln Thr Ile Asp Gln Lys Ile Asn Met
155                 160                 165
Leu Tyr Asn Glu Leu Phe Gln Ser Leu Val Pro Lys Glu Lys Tyr
            170                 175                 180
Asp Lys Asn Asp Val Ile Leu Glu Val Thr Ala Gly Arg Thr Thr
        185                 190                 195
Gly Gly Asp Ile Cys Gln Gln Phe Thr Arg Glu Ile Phe Asp Met
    200                 205                 210
Tyr Gln Asn Tyr Ser Cys Tyr Lys His Trp Gln Phe Glu Leu Leu
215                 220                 225
Asn Tyr Thr Pro Ala Asp Tyr Gly Gly Leu His His Ala Ala Ala
            230                 235                 240
Arg Ile Ser Gly Asp Gly Val Tyr Lys His Leu Lys Tyr Glu Gly
        245                 250                 255
Gly Ile His Arg Val Gln Arg Ile Pro Glu Val Gly Leu Ser Ser
    260                 265                 270
Arg Met Gln Arg Ile His Thr Gly Thr Met Ser Val Ile Val Leu
275                 280                 285
Pro Gln Pro Asp Glu Val Asp Val Lys Leu Asp Pro Lys Asp Leu
            290                 295                 300
Arg Ile Asp Thr Phe Arg Ala Lys Gly Ala Gly Gly Gln His Val
        305                 310                 315
Asn Lys Thr Asp Ser Ala Val Arg Leu Val His Ile Pro Thr Gly
    320                 325                 330
Leu Val Val Glu Cys Gln Gln Glu Arg Ser Gln Ile Lys Asn Lys
335                 340                 345
Glu Ile Ala Phe Arg Val Leu Arg Ala Arg Leu Tyr Gln Gln Ile
            350                 355                 360
Ile Glu Lys Asp Lys Arg Gln Gln Gln Ser Ala Arg Lys Leu Gln
        365                 370                 375
Val Gly Thr Arg Ala Gln Ser Glu Arg Ile Arg Thr Tyr Asn Phe
    380                 385                 390
Thr Gln Asp Arg Val Ser Asp His Arg Ile Ala Tyr Glu Val Arg
395                 400                 405
Asp Ile Lys Glu Phe Leu Cys Gly Gly Lys Gly Leu Asp Gln Leu
            410                 415                 420
Ile Gln Arg Leu Leu Gln Ser Ala Asp Glu Glu Ala Ile Ala Glu
        425                 430                 435
Leu Leu Asp Glu His Leu Lys Ser Ala Lys
    440                 445
```

<210> 10
<211> 280

<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte Clone No: 3992058

<400> 10
Met Val Ala Arg Arg Arg Lys Cys Ala Ala Arg Asp Pro Glu Asp
1 5 10 15
Arg Ile Pro Ser Pro Leu Gly Tyr Ala Ala Ile Pro Ile Lys Phe
20 25 30
Ser Glu Lys Gln Gln Ala Ser His Tyr Leu Tyr Val Arg Ala His
35 40 45
Gly Val Arg Gln Gly Thr Lys Ser Thr Trp Pro Gln Lys Arg Thr
50 55 60
Leu Phe Val Leu Asn Val Pro Pro Tyr Cys Thr Glu Glu Ser Leu
65 70 75
Ser Arg Leu Leu Ser Thr Cys Gly Leu Val Gln Ser Ile Glu Leu
80 85 90
Gln Glu Lys Pro Asp Leu Ala Glu Ser Pro Lys Glu Ser Arg Ser
95 100 105
Lys Phe Phe His Pro Lys Pro Val Pro Gly Phe Gln Val Ala Tyr
110 115 120
Val Val Phe Gln Lys Pro Ser Gly Val Ser Ala Ala Leu Ala Leu
125 130 135
Lys Gly Pro Leu Leu Val Ser Thr Glu Ser His Pro Val Lys Ser
140 145 150
Gly Ile His Lys Trp Ile Ser Asp Tyr Ala Asp Ser Val Pro Asp
155 160 165
Pro Glu Ala Leu Arg Val Glu Val Asp Thr Phe Met Glu Ala Tyr
170 175 180
Asp Gln Lys Ile Ala Glu Glu Glu Ala Lys Ala Lys Glu Glu Glu
185 190 195
Gly Val Pro Asp Glu Glu Gly Trp Val Lys Val Thr Arg Arg Gly
200 205 210
Arg Arg Pro Val Leu Pro Arg Thr Glu Ala Ala Ser Leu Arg Val
215 220 225
Leu Glu Arg Glu Arg Arg Lys Arg Ser Arg Lys Glu Leu Leu Asn
230 235 240
Phe Tyr Ala Trp Gln His Arg Glu Ser Lys Met Glu His Leu Ala
245 250 255
Gln Leu Arg Lys Lys Phe Glu Glu Asp Lys Gln Arg Ile Glu Leu
260 265 270
Leu Arg Ala Gln Arg Lys Phe Arg Pro Tyr
275 280

<210> 11
<211> 130
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte Clone No: 4011179

<400> 11
Met Ala Arg Gly Val Val Ser Ala Lys Gly Gly Ala Val Ala Gly

```
  1               5                  10                  15
Lys Lys Lys Gly Ser Val Ser Phe Thr Ile Asp Cys Thr Lys Pro
                20                  25                  30
Val Glu Asp Lys Ile Met Glu Val Ala Ser Leu Glu Lys Phe Leu
                35                  40                  45
Gln Glu Arg Ile Lys Val Ala Gly Gly Lys Ala Gly Asn Leu Gly
                50                  55                  60
Asp Ser Val Thr Ile Ser Arg Glu Lys Thr Lys Val Thr Val Thr
                65                  70                  75
Ser Asp Gly Pro Phe Ser Lys Arg Tyr Leu Lys Tyr Leu Thr Lys
                80                  85                  90
Lys Tyr Leu Lys Lys His Asn Val Arg Asp Trp Leu Arg Val Val
                95                 100                 105
Ala Ala Asn Lys Asp Arg Asn Val Tyr Glu Leu Arg Tyr Phe Asn
               110                 115                 120
Ile Ala Glu Asn Glu Gly Glu Glu Glu Asp
               125                 130
```

<210> 12
<211> 226
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte Clone No: 5425219

<400> 12

```
Met Ser Asn Tyr Val Asn Asp Met Trp Pro Gly Ser Pro Gln Glu
  1               5                  10                  15
Lys Asp Ser Pro Ser Thr Ser Arg Ser Gly Gly Ser Ser Arg Leu
                20                  25                  30
Ser Ser Arg Ser Arg Ser Arg Ser Phe Ser Arg Ser Ser Arg Ser
                35                  40                  45
His Ser Arg Val Ser Ser Arg Phe Ser Ser Arg Ser Arg Arg Ser
                50                  55                  60
Lys Ser Arg Ser Arg Ser Arg Arg Arg His Gln Arg Lys Tyr Arg
                65                  70                  75
Arg Tyr Ser Arg Ser Tyr Ser Arg Ser Arg Ser Arg Ser Arg Ser
                80                  85                  90
Arg Arg Tyr Arg Glu Arg Arg Tyr Gly Phe Thr Arg Arg Tyr Tyr
                95                 100                 105
Arg Ser Pro Ser Arg Tyr Arg Ser Arg Ser Arg Ser Arg Ser Arg
               110                 115                 120
Ser Arg Gly Arg Ser Tyr Cys Gly Arg Ala Tyr Ala Ile Ala Arg
               125                 130                 135
Gly Gln Arg Tyr Tyr Gly Phe Gly Arg Thr Val Tyr Pro Glu Glu
               140                 145                 150
His Ser Arg Trp Arg Asp Arg Ser Arg Thr Arg Ser Arg Ser Arg
               155                 160                 165
Thr Pro Phe Arg Leu Ser Glu Lys Asp Arg Met Glu Leu Leu Glu
               170                 175                 180
Ile Ala Lys Thr Asn Ala Ala Lys Ala Leu Gly Thr Thr Asn Ile
               185                 190                 195
Asp Leu Pro Ala Ser Leu Arg Thr Val Pro Ser Ala Lys Glu Thr
               200                 205                 210
Ser Arg Gly Ile Gly Val Ser Ser Asn Gly Ala Lys Pro Glu Lys
               215                 220                 225
```

Ser

<210> 13
<211> 296
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte Clone No: 5522684

<400> 13
Met Ala Gly Pro Leu Gln Gly Gly Gly Ala Arg Ala Leu Asp Leu
1 5 10 15
Leu Arg Gly Leu Pro Arg Val Ser Leu Ala Asn Leu Lys Pro Asn
20 25 30
Pro Gly Ser Lys Lys Pro Glu Arg Arg Pro Arg Gly Arg Arg Arg
35 40 45
Gly Arg Lys Cys Gly Arg Gly His Lys Gly Glu Arg Gln Arg Gly
50 55 60
Thr Arg Pro Arg Leu Gly Phe Glu Gly Gly Gln Thr Pro Phe Tyr
65 70 75
Ile Arg Ile Pro Lys Tyr Gly Phe Asn Glu Gly His Ser Phe Arg
80 85 90
Arg Gln Tyr Lys Pro Leu Ser Leu Asn Arg Leu Gln Tyr Leu Ile
95 100 105
Asp Leu Gly Arg Val Asp Pro Ser Gln Pro Ile Asp Leu Thr Gln
110 115 120
Leu Val Asn Gly Arg Gly Val Thr Ile Gln Pro Leu Lys Arg Asp
125 130 135
Tyr Gly Val Gln Leu Val Glu Glu Gly Ala Asp Thr Phe Thr Ala
140 145 150
Lys Val Asn Ile Glu Val Gln Leu Ala Ser Glu Leu Ala Ile Ala
155 160 165
Ala Ile Glu Lys Asn Gly Gly Val Val Thr Thr Ala Phe Tyr Asp
170 175 180
Pro Arg Ser Leu Asp Ile Val Cys Lys Pro Val Pro Phe Phe Leu
185 190 195
Arg Gly Gln Pro Ile Pro Lys Arg Met Leu Pro Pro Glu Glu Leu
200 205 210
Val Pro Tyr Tyr Thr Asp Ala Lys Asn Arg Gly Tyr Leu Ala Asp
215 220 225
Pro Ala Lys Phe Pro Glu Ala Arg Leu Glu Leu Ala Arg Lys Tyr
230 235 240
Gly Tyr Ile Leu Pro Asp Ile Thr Lys Asp Glu Leu Phe Lys Met
245 250 255
Leu Cys Thr Arg Lys Asp Pro Arg Gln Ile Phe Phe Gly Leu Ala
260 265 270
Pro Gly Trp Val Val Asn Met Ala Asp Lys Lys Ile Leu Lys Pro
275 280 285
Thr Asp Glu Asn Leu Leu Lys Tyr Tyr Thr Ser
290 295

<210> 14
<211> 2297

<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte Clone No: 046926

<400> 14
ttctctgtgg cggagacagc caggttggca gctgacggga cagccggggt ctattttgtt 60
gcgggttttc agcaaatcca gggctggtct ggaggcgcga aaacttaagg catacagaac 120
gatggagtat atggcagaat ccaccgaccg cagccctgga cacatcttgt gctgtgagtg 180
tggtgttccg ataagtccaa atcctgccaa tatttgtgtg gcctgtttgc gaagtaaagt 240
ggacatcagc caaggtattc cgaaacaagt ctcgatttcg ttctgcaaac aatgtcaaag 300
gtattttcaa ccaccaggaa cttggataca gtgtgcttta gaatccaggg aacttcttgc 360
tttgtgcttg aaaaaaatca aagcccctct gagtaaggta cggcttgtag atgcaggctt 420
tgtttggact gagcctcatt ctaagagact taaagttaaa ctgactattc agaaagaggt 480
gatgaatggt gctatccttc aacaagtgtt tgtggtggat tatgttgttc agtcccaaat 540
gtgtggagat tgccatagag tagaagctaa ggatttctgg aaggctgtga ttcaagtgag 600
gcaaaagact ttgcataaaa aaactttcta ctatctggaa cagttaattc tgaaatatgg 660
aatgcatcag aatacacttc gtatcaaaga gattcatgat ggtctggatt tttattattc 720
ctcaaaacaa catgctcaga agatggtcga atttcttcag tgtacagttc cctgtagata 780
caaagcatca caaagactga tctctcaaga tatccatagt aacacataca attacaaaag 840
cacttttttct gtggaaattg ttccaatatg caaggataat gttgtctgtc tgtctccaaa 900
actggcacaa agcctgggaa atatgaacca gatttgtgtg tgtattcgag taaccagtgc 960
cattcacctc attgatccaa acaccctaca agtggcagat attgatggga gcactttctg 1020
gagtcaccct ttcaatagtt tatgtcatcc caaacagcta gaggagttta ttgtgatgga 1080
atgcagcata gtccaagata taaaacgtgc tgcaggtgct ggaatgatat caaaaaagca 1140
taccctcggg gaagtctggg tacagaagac atctgaaatg aatacagata aacagtattt 1200
ttgtcgtact catttgggac atcttctaaa tcccggagac ctggtgttag ggtttgattt 1260
ggccaactgt aacttaaatg atgagcatgt caacaaaatg aactcagata gagttccaga 1320
tgtggtatta atcaagaaga gctatgaccg gaccaaacgt cagcgtcgta gaaactggaa 1380
attgaaagag cttgcaagag agagagaaaa catggataca gatgatgaaa ggcaatacca 1440
agattttctt gaagatcttg aagaagatga ggcaattcga aaaaatgtca acatttacag 1500
agattcagcc atccctgtgg aaagtgacac cgatgatgaa ggagcacctc gaattagtct 1560
ggctgagatg cttgaagacc ttcatatttc ccaagatgcc actggtgaag aaggtgcatc 1620
aatgctgaca taatgagatg ttgtagactg tttccataca tgggcttaag aagttggaca 1680
gagttacctt aagtgtctct actatctttg cctccagatt tcaagaggag aaatttagtt 1740
ttaaacctga ataaacatgt ttgttttcag tgctcactca aaccactaaa acagatggat 1800
agctttgagg ttttagataa ggaaagatta tggagaatgt agttgttatt gatttttggc 1860
aattttacat ttggaatttt atcactgtgc ttttttatat gaggcactgt agtattttca 1920
catagtatag tactctggat gtaaaagctc aaaaattgtg attccttgaa cgttcactaa 1980
atcttcaagc aaaaacacat ttttacatta tttttacgtt gattatttta gtgaaagacc 2040
atatgaagaa gcatttttaa tattaacttg ttacatactt tgatccactt tacatcattt 2100
ttatgttgtt gaggtaggga aattagggtt cagtttatca ctggacattc aggaggcaag 2160
tcaatctttt ttatttcctt ataaaattaa ctcttcaaaa gctgttaaac agagagttat 2220
cttaattttt attgcagtag gaggaaatat atttaaaata tttgtagatt tatagcaaat 2280
agagactcgt tatttaa 2297

<210> 15
<211> 2144
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte Clone No: 618791

<400> 15
gacctgcgct ggaggcttca tctttgccgc cgctgccgtc gccttcctgg gattggagtc 60
tcgagctttc ttcgttcgtt cgtcggcggg ttcgcgccct tctcgcgcct cggggctgcg 120

aggctgggga aggggttgga gggggctgtt gatcgccgcg tttaagttgc gctcggggcg 180
gccatgtcgg ccggcgaggt cgagcgccta gtgtcggagc tgagcggcgg gaccggaggg 240
gatgaggagg aagagtggct ctatggcggc ccatgggacg tgcatgtgca cagtgatttg 300
gcaaaggacc tagatgaaaa tgaagttgaa aggccagaag aagaaaatgc cagtgctaat 360
cctccatctg gaattgaaga tgaaactgct gaaaatggtg taccaaaacc gaaagtgact 420
gagaccgaag atgatagtga tagtgacagc gatgatgatg aagatgatgt tcatgtcact 480
ataggagaca ttaaaacggg agcaccacag tatgggagtt atggtacagc acctgtaaat 540
cttaacatca agacaggggg aagagtttat ggaactacag ggacaaaagt caaaggagta 600
gaccttgatg cacctggaag cattaatgga gttccactct tagaggtaga tttggattct 660
tttgaagata aaccatggcg taaacctggt gctgatcttt ctgattattt taattatggg 720
tttaatgaag atacctggaa agcttactgt gaaaaacaaa agaggatacg aatgggactt 780
gaagttatac cagtaacctc tactacaaat aaaattacgg ccgaagactg tactatggaa 840
gttacaccag gtgcagagat ccaagatggc agattcaatc tttttaaggt acagcaggga 900
agaactggaa actcagagaa agaaactgcc cttccatcta caaaagctga gtttacttct 960
cctccttctt tgttcaagac tgggcttcca ccgagcagaa acagcacttc ttctcagtct 1020
cagacaagta ctgcctccag aaaagccaat tcaagcgttg ggaagtggca ggatcgatat 1080
gggagggccg aatcacctga tctaaggaga ttacctgggg caattgatgt tatcggtcag 1140
actataacta tcagccgagt agaaggcagg cgacgggcaa atgagaacag caacatacag 1200
gtcctttctg aaagatctgc tactgaagta gacaacaatt ttagcaaacc acctccgttt 1260
ttccctccag gagctcctcc cactcacctt ccacctcctc catttcttcc acctcctccg 1320
actgtcagca ctgctccacc tctgattcca ccaccgggtt ttcctcctcc accaggcgct 1380
ccacctccat ctcttatacc aacaatagaa agtggacatt cctctggtta tgatagtcgt 1440
tctgcacgtg catttccata tggcaatgtt gcctttcccc atcttcctgg ttctgctcct 1500
tcgtggccta gtcttgtgga caccagcaag cagtgggact attatgccag aagagagaaa 1560
gaccgagata gagagagaga cagagacaga gagcgagacc gtgatcggga cagagaaaga 1620
gaacgcacca gagagagaga gagggagcgt gatcacagtc ctacaccaag tgttttcaac 1680
agcgatgaag aacgatacag atacagggaa tatgcagaaa gaggttatga gcgtcacaga 1740
gcaagtcgag aaaaagaaga acgacataga gaaagacgac acagggagaa agaggaaacc 1800
agacataagt cttctcgaag taatagtaga cgtcgccatg aaagtgaaga aggagatagt 1860
cacaggagac acaaacacaa aaaatctaaa agaagcaaag aaggaaaaga agcgggcagt 1920
gagcctgccc ctgaacagga gagcaccgaa gctacacctg cagaataggc atggttttgg 1980
ccttttgtgt atattagtac cagaagtaga tactataaat cttgttattt ttctggataa 2040
tgtttaagaa atttaccttа aatcttgttc tgtttgttag tatgaaaagt taacttttt 2100
tccaaaataa aagagtgaat ttttcatgtt aagttaaaaa aaaa 2144

<210> 16
<211> 1343
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte Clone No: 1240366

<400> 16
cggacgcgtg ggttggaatt ctcggatccc gagagatgtc agagacacag tactcgagcc 60
ttacgcagac ccttattatg actatgaaat tgagcggttt tggcgtggcg gacagtatga 120
gaatttcagg gtgcagtata cagaaacaga gccgtatcat aattaccgac cgccaagctg 180
agccaccaaa gaaggaggct gccaccacgg ggccgcaggt gaagagagca gatgagtgga 240
aggacccttg gcgccgatcc aagtctccca agaagaaact cggggtgtcg gtctccccga 300
gccgggctcg aaggcgtcgg aaaacatcag cctcgtcagc ctctgcctct aattcctcca 360
ggtcgtcttc gcggtcatcg tcctactctg gctccggctc ctcccggtcg cgatcccggt 420
cttcatccta cagctcctac tccagccgct cttccagaca cagctcgttc tcaggaagcc 480
ggtccaggtc ccggtccttc tcttcgtccc cgtccccgtc cccaacacct tccccacata 540
gaccttccat cagaaccaag ggagagccgg ccccgccgcc cgggaaagca ggagagaagt 600
cagtgaagaa gccggccccg cctccagccc caccacaggc caccaaaacc actgctcctg 660
tccccgagcc caccaagcca ggagaccctc gggaagccag gaggaaggag cggccagcca 720
ggacccccc caggaggcgg acgctaagcg gcagcggcag tggcagtggt agcagctata 780
gtggttccag ctcccgatcc aggtccctga gcgtgagcag cgtctcctca gtgtccagtg 840
ctacgtcgag cagcagctct gcacacagcg tggactcgga ggacatgtac gcagacctgg 900

ctagccccgt gtcctcagcc agctctcggt ccccggcccc agcccagacc aggaaggaga 960
aaggaaaatc taagaaagaa gacggtgtta aagaggaaaa gcggaaaagg gattcgtcca 1020
cacaaccacc caaatctgca aaacctccag caggggggaa gtcctcccag cagccctcga 1080
caccccagca ggcacccccc gggcagcccc agcagggcac atttgtggcc cacaaggaga 1140
tcaagttgac actgttgaat aaggcggctg ataaaggaag caggaagcgc tatgaaccat 1200
cagacaagga caggcagagc cctcctccag ccaagcggcc caacacatcc ccagaccgag 1260
gttctcggga ccgatagtca ggtgggagac tgggctcccc gaagccagag cggcagcaag 1320
cttattccct ttagtgaggg gac 1343

<210> 17
<211> 1346
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte Clone No: 1295773

<400> 17
atctaggacc ttgacagcac tgagtatcaa ggcaaaagaa tgcatgtgca gttgtccaca 60
agccggcttc ggactgcccc tggtatggga gaccagagtg gctgctatcg gtgtgggaaa 120
gaagggcact ggtccaaaga gtgcccagta gatcgtacgg gtcgtgtggc agactttact 180
gagcagtata atgaacaata tggagcagtt cgaacacctt acaccatggg ctacggggaa 240
tccatgtatt acaacgatgc atatggagca ctcgactact ataagcgata ccgggtccgc 300
tcttatgagg cagtagcagc ggcggcagcg gcttctgcat acaactacgc agagcagacc 360
atgtcccatc tgcctcaagt ccaaagcaca actgtgacca gccacctcaa ctctacttct 420
gttgatccct atgacagaca cctattgcca aactctggcg ctgctgccac ttcagctgct 480
atggctgctg ctgcagccac cacttcctcc tactatggaa gggacaggag cccactgcgt 540
cgtgctgcag ccatgctccc cacagttgga gagggctacg gttatgggcc agagagtgaa 600
ttatctcagg cttccgcagc tacacggaat tctctgtatg acatggcccg gtatgaacgg 660
gagcagtatg tggaccgagc ccggtactca gccttttaaa aactggaggt aggataattg 720
cggactgaac cctcgggctg cggtcatata tgagaacttg ctccgcgcgg tccccttttgc 780
cgggatgttt ccattgcttc atgtttcagt aaacaaaagg agtttgtgac caactatgtt 840
ttctttctta attcttctaa gttgactttt ctttcctcct gaaactagtc tctgtagcct 900
ttcactctgt tccttatatt ctcagcctct gagcagccct aggtaaggat tatgctggca 960
tccccttttt cctgtgcagt ggaacccctc ttatcttgct ttccctagga gttgaatcct 1020
tctccctgcc tacctgcagc atctcctttc cctttaaaat gaccatgtag tggcaagcag 1080
ccttttactc ttctgttagc tctggactct taacacttaa gttactcttc tgaaattgct 1140
aggaccattg ggggttttgt tgttttgttt gtttttatg tccgacctgt gatcgtggta 1200
cagcattagc tgaaatttac ccttgtttta ctccactcct ccctttttta aaaaaatttt 1260
ttgacaaata aatgtttcta acacttaaaa aaaaaaatga agaataaaca aagaaaaaat 1320
ccaagtacat aacagaaaaa aaaaaa 1346

<210> 18
<211> 2720
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte Clone No: 1858421

<400> 18
gtgaggagtg cggaggggcg cgaggtttca agatggcggt agctgagggg ttgaccgaga 60
gacccagttg aaggccttta cgaagtgaaa gaggccggga atcgcccccc acccgcttct 120
cgtagtcctg ggagcacagc agaagtgttt ttctttttttt aatgaacaag taaaccatac 180
aaattgtcaa catgggacgg agatctacat catccaccaa gagtggaaaa tttatgaacc 240
ccacagacca agcccgaaag gaagcccgga agagagaatt aaagaagaac aaaaaacagc 300
gcatgatggt tcgagctgca gttttaaaga tgaaggatcc aaaacagata atccgagaca 360

tggagaaatt ggatgaaatg gagtttaacc cagtgcaaca gccacaatta aatgagaaag 420
tactgaaaga caagcgtaaa aagctgcgtg aaacctttga acgtattcta cgactctatg 480
aaaaagagaa tccagatatt tacaaagaat tgagaaagct agaagtagaa tatgaacaga 540
agagggctca acttagccaa tattttgatg ctgtcaagaa tgctcagcat gtggaagtgg 600
agagtattcc tttgccagat atgccacatg ctccttccaa cattttgatc caggacattc 660
cacttcctgg tgcccagcca ccctctatcc taaagaaaac ctcagcctat ggacctccaa 720
ctcgggcagt ttctatcctt cctcttcttg gacatggtgt tccacgtttg ccccctggca 780
gaaaacctcc tggccctccc cctggtccac ctcctcctca agtcgtgcag atgtatggcc 840
gtaaagtggg ttttgcccta gatcttcccc ctcgtaggcg agatgaagac atgttatata 900
gtcctgaact tgcccagcga ggtcatgatg atgatgtttc tagcaccagt gaagatgatg 960
gctatcctga ggacatggat caagataagc atgatgacag tactgatgac agtgacaccg 1020
acaaatcaga tggagaaagt gacggggatg aatttgtgca ccgtgataat ggtgagagag 1080
acaacaatga agaaaagaag tcaggtctga gtgtacggtt tgcagatatg cctggaaaat 1140
caaggaagaa aaagaagaac atgaaggaac tgactcctct tcaagccatg atgcttcgta 1200
tggcaggtca agaaatccct gaggagggac gggaagtaga ggaattttca gaggacgatg 1260
atgaagatga ttctgatgac tctgaagcag aaaagcaatc acaaaagcag cataaagagg 1320
aatcccattc tgatggcaca tccactgctt cttcacagca gcaggctccg ccgcagtctg 1380
ttcctccttc tcagatacaa gcacctccca tgccaggacc accacctctt ggaccaccac 1440
ctgctccacc attacggcct cctgggccac ctacaggcct tcctcctggt ccacctccag 1500
gagctcctcc attcctgaga ccacctggaa tgccaggact ccgagggccc ttaccccgac 1560
ttttacctcc aggaccacca ccaggccgac cccctggccc tcccccaggt ccacctccag 1620
gtctgcctcc tggtcccccc cctcgtggac ccccaccaag gctacctccc cctgcacctc 1680
caggtattcc tccacctcgt cctggcatga tgcgcccacc tttggtgcct ccccttggac 1740
ctgccccccc tgggctgttc ccaccagctc ccttgccaaa ccctggggtt ttaagtgccc 1800
cacccaactt gattcagcga cccaaggcgg atgatacaag tgcagccacc attgagaaga 1860
aagccacagc aaccatcagt gccaagccac agatcactaa tcccaaggca gagattactc 1920
gatttgtgcc cactgcactg agagtacgtc gggagaataa aggggctact gctgctcccc 1980
aaagaaagtc agaggatgat tctgctgtgc ctcttgccaa agcagcaccc aaatctggtc 2040
cttctgttcc tgtctcagta caaactaagg atgatgtcta tgaggctttc atgaaagaga 2100
tggaagggct actgtgacag cttttgatgc cagaaaaggc ttctgttcac aacagtggcc 2160
catggagaaa gaggctctta ttaaacttag atgaaagagc tgcttccatt gtcagggtat 2220
tttctaattt cagttcaagg aatatcctaa aatttagcct tgttcagaat ttactgcaca 2280
taaaaaaggg tatttcatcc agaatagatc agttattgaa gcagtgctgc taacatccat 2340
tccctttcat accaccattt tcaccctgtt tcttcccctc ctccagttct ttggaaattt 2400
gtgatcgggg gatcttagtt gcttatttgt tttgactctt gtgtgctgtg ggcactggag 2460
tagagatttc tggagaaaaa aaaacagttt atttcatctt gccttttgtg tttgagttat 2520
ttttaatatt ttcctgtaaa tattttgtaa tattttactt gtaatgaaat ggatcacaat 2580
gtcatttcct aatacaaggc aggatatgtg ggaagaatat gtacaattat ttgattaaaa 2640
ttatttccca ctgacctaaa ctttcagtga tttgtgggaa aaataaataa atgttctaca 2700
ccaagaaaaa aaaaaaaaaa 2720

<210> 19
<211> 676
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte Clone No: 2152431

<400> 19
gggaccagcg cgggtgcgca gacgaaaggc gctctttgcc agctgaaagt tcccacggaa 60
aaactaccat ctcccctgcc caccatggca gacgaaattg atttcactac tggagatgcc 120
ggggcttcca gcacttaccc tatgcagtgc tcggccttgc gcaaaaacgg cttcgtggtg 180
ctcaaaggac gaccatgcaa aatagtggag atgtcaactt ccaaaactgg aaagcatggt 240
catgccaagg ttcaccttgt tggaattgat attttcacgg gcaaaaaata tgaagatatt 300
tgtccttcta ctcacaacat ggatgttcca aatattaaga gaaatgatta tcaactgata 360
tgcattcaag atggttacct ttccctgctg acagaaactg gtgaagttcg tgaggatctt 420
aaactgccag aaggtgaact aggcaaagaa atagagggaa aatacaatgc aggtgaagat 480

gtacaggtgt ctgtcatgtg tgcaatgagt gaagaatatg ctgtagccat aaaaccctgc 540
aaataaacgg aaacatcagg catgaacact gtttatgtct gaatcaactg cagatctaat 600
ttggttctaa gttgtcacca aagctatagc cttcataagc aacctcattt ctttttttaa 660
ttgttttcag attgtg 676

<210> 20
<211> 909
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte Clone No: 2641494

<400> 20
acggaaactg actggggtca attcaagtca tgcaggctgt gagaaacgcg gggtcgcggt 60
tcctgcggtc ctggacttgg ccccagacag ccggcagggt cgtggccaga acgccggccg 120
ggaccatctg cacaggcgct cgacagctcc aagacgctgc ggccaagcag aaagttgaac 180
agaacgcggc tcccagccac accaagttca gcatttaccc tcccattcca ggagaggaga 240
gctctctgag gtgggcagga aagaaatttg aggagatccc aattgcacac attaaagcat 300
cccacaacaa cacacagatc caggtagtct ctgctagtaa tgagcccctt gcctttgctt 360
cctgtggcac agagggattt cggaatgcca agaagggcac aggcatcgca gcacagacag 420
caggcatagc cgcagcggcg agagctaaac aaaagggcgt gatccacatc cgagttgtgg 480
tgaaaggcct ggggccagga cgcttgtctg ccatgcacgg actgatcatg ggcggcctgg 540
aagtgatctc aatcacagac aacaccccaa tcccacacaa cggctgccgc cccaggaagg 600
ctcggaagct gtgatgggaa ggaggcctgc acttggacct gacctcaagc ctcagctcca 660
gtgggacctt gtaaaatgct ccctgtcaga gctctccaga atatgcttgt tggagatcct 720
tcaggcagta agggagagtt ttgcctcctt acacagtggc ctttgcttgc acctccagct 780
ggagatgggt gtgccccaga agtaagcttt gcatctctta caagagggga gctacagggg 840
cagccgtggc ctaggcccaa actctgctct gagaaaataa atatctgtac cacctgtcaa 900
aaaaaaaaa 909

<210> 21
<211> 2405
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte Clone No: 3803409

<400> 21
cttcaagacc tggaatgtat ccgcctccag ggtcgtatag acctaccccc tcctatgggc 60
aaaccaccag gttcaattgt aagaccctct gctccaccag caagatcatc tgttcctgtg 120
accaggccac ctgtcccaat accaccacct ccacctcctc cacctctacc tcctcctcct 180
ccagtgataa agccacaaac ttcagctgta gaacaggaac gatgggatga agattctttc 240
tatgggctct gggatacaaa tgatgaacaa ggactgaatt cagaatttaa gtcagaaact 300
gcagcaattc catctgctcc agtattacca cccccacctg ttcactcttc cattcccct 360
cctggcccag tgcctatggg tatgccacca atgtccaagc caccaccagt acaacagact 420
gttgattatg gccatggccg agatatatcc actaataaag ttgaacagat accttatgga 480
gaaagaataa ctctacgccc agatccacta cctgaaagat caacttttga gacagagcat 540
gcaggccaac gtgatcgtta tgatagagaa agagatcgtg agccttattt tgatcgtcaa 600
agtaatgtca tagcagatca tcgagatttt aaaagggatc gtgagacaca tagagatcga 660
gaccgggatc gtggtgttat tgactatgac cgggatcgat ttgacagaga acgccgaccc 720
cgagatgata gagctcagtc atatcgagac aaaaaagacc attcctcatc cagaagaggg 780
ggttttgata ggccatccta tgaccggaag tctgaccgac cagtctatga aggaccatcc 840
atgtttggag gagaacgaag gacttatcct gaggagcgaa tgcctctgcc agctccttca 900
ctgagccacc agccacctcc agctccacga gtcgagaaga agcctgaatc aaagaatgtg 960
gacgatattt tgaaaccacc gggccgggag agcagacctg agagaattgt tgttataatg 1020

agaggattac ctggcagtgg aaagacacat gttgcaaaac ttattcgaga taaggaggta 1080
gaatttggag gacctgcacc cagagttcta agcctggatg attacttcat cactgaagtg 1140
gaaaaagaag aaaaagatcc agattctgga aagaaagtga aaaagaaggt aatggaatat 1200
gaatatgaag ctgagatgga ggagacttac cgcaccagca tgttcaaaac tttcaaaaag 1260
actctggatg atggcttttt tcccttcatc atcctggatg ccatcaatga cagagttagg 1320
cattttgacc agttttggag tgcagcaaaa accaagggat ttgaggtata tttggctgaa 1380
atgagtgcag ataaccagac ttgtggcaag agaaatattc atggaagaaa gcttaaagaa 1440
ataaataaga tggctgatca ctgggaaact gcacctcgtc acatgatgcg tctagatatt 1500
cgttctttgc tgcaagatgc tgctattgaa gaggtagaga tggaagattt tgatgcaaat 1560
atcgaagaac agaaagaaga aaagaaagat gcagaggaag aggaaagcga actgggttac 1620
attccgaaaa gcaaatggga gatggacaca tctgaggcaa agctagacaa gttggatggc 1680
ttgaggactg gtactaaaag gaaacgtgac tgggaggcca ttgccagcag aatggaggat 1740
tatcttcagc tccccgatga ttatgatact cgtgcttctg agcctgggaa gaagagggtc 1800
agatgggcag acctggaaga gaagaaggat gcagatagga aaagggccat aggttttgtg 1860
gtcggacaga ctgattggga gaagatcaca gatgaaagtg gtcacctggc tgaaaaagcc 1920
ctcaatcgaa ccaaatatat atgagactta gtttttgaac ggagtcatta ttcctctaag 1980
gtggttcgct ttgaggtggt ctgaagccaa ggcctcgcgg agcttctttg tgtgtcacct 2040
tgcttccacg tttcagttct tgttttgttt ctactgcttt agtttttttt aaagttctcc 2100
agtgtcccca agaggtatta gaatcttgct gtacccaagc aagacgttaa tttttctttt 2160
aactgttttg gggagggagg gagtgatagc ttaactgctg aagccaggcg ggggtctgct 2220
ggaggattcc aacagagagt atttcctcca ctgtacaatg tcacagacta tctctatcat 2280
cattgctttg tggctgtttc tgtttttttac tgtatgtaac tggtagctga ttgtactagg 2340
attaaaaaca ataaactttc atgataaagc cgatgagatt catgggctat acagaaaaaa 2400
aaaaa 2405

<210> 22
<211> 1754
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte Clone No: 3979009

<400> 22
cgggtttgtc gggctgaaat gtggcgggtc tcggaaggtt ccgacctcag taaagagagc 60
taacgtgtat tcttcttttt cttagatgct gagatgaatc gtcacctgtg tgtttggctt 120
tttagacatc catctcttaa tggttacctc cagtgtcaca tccagctcca ttctcatcaa 180
tttagacaga tacatcttga tacaaggctg caagttttta gacaaaacag gaattgcatt 240
cttcatctgt taagtaagaa ttggtccagg agatattgcc atcaagacac caagatgctc 300
tggaagcata aagcactaca gaaatatatg gagaacctga gtaaggagta ccaaacactt 360
gagcaatgtc tgcagcatat ccctgtgaat gaagaaaacc gaaggtcctt gaacagaagg 420
catgctgagt tggcacctct tgcagccatt taccaagaaa ttcaggagac tgaacaagca 480
attgaagaat tagaatcaat gtgtaaaagc ctaaataaac aagatgaaaa gcagttacaa 540
gaacttgcac tggaagaaag gcaaaccatt gatcaaaaaa tcaacatgtt gtacaatgag 600
cttttccaga gccttgtgcc aaaggagaaa tatgacaaaa atgatgttat tttagaggtg 660
acagctggaa ggactactgg aggtgacatc tgccaacaat ttacccgaga aatatttgac 720
atgtaccaga attattcgtg ctataaacac tggcaatttg aacttctgaa ttatacacca 780
gcagattatg gtggactaca tcatgcagcc gcccgaattt ccggtgacgg tgtctataag 840
catttgaagt atgagggtgg gattcaccga gttcagcgca tccccgaggt gggcctgtcc 900
tcaaggatgc agcgcattca cacaggaacg atgtcggtta ttgtccttcc tcagccagat 960
gaggtggatg tgaaattgga ccccaaggat ttgcgaatag atacatttcg agccaaagga 1020
gcaggagggc agcatgttaa taaaactgat agtgccgtca gacttgtcca catccccaca 1080
gggctagtag tagaatgcca acaagaaaga tcacagataa aaaataaaga aatagccttt 1140
cgtgtgttga gagctagact ctaccagcag attattgaga aagacaagcg tcagcaacaa 1200
agtgctagaa aactgcaggt gggaacaaga gcccagtcag agcgaattcg gacatataat 1260
ttcacccagg atagagtcag tgaccacagg atagcatatg aagttcgtga tattaaggaa 1320
tttttatgtg gtgggaaggg cctggatcag ctaattcaga gactgcttca atcagcagat 1380
gaagaagcca ttgctgaact tttggatgaa caccttaaat cagcaaaata aatactaact 1440
tattattatt tatgattata taaatgaaat ggacctatat caagaggcag actgaagctt 1500

ggaaatcatt atgaatattt gtaaattaca gctttaagaa cacattacac ataaatatat 1560
gttttgtaat taatcgaagt cacatttcct gacctaagaa tttattttag gtttcctgta 1620
aagtacaatc caactcatca agtagaaaat aagcatgcat cattgaaaag ggaaagtatt 1680
gagaattgat tgtgtcattt aggacaagtc acttgttctc ttaaaatgcc ttttttcccc 1740
agccatctat gaat 1754

<210> 23
<211> 1221
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte Clone No: 3992058

<400> 23
ccgcgctccc gggtggcaag atggtggcgc gcaggaggaa gtgcgccgcg cgggacccgg 60
aggaccgtat ccccagccca ctgggctacg cagctattcc aatcaagttc tctgaaaagc 120
aacaggcttc tcactacctc tatgtgagag cacacggcgt tcgacaaggc accaagtcca 180
cctggcctca gaagaggact ctttttgtcc tcaatgtgcc cccatactgc acagaggaga 240
gcctgtcccg cctcctgtcc acctgtggcc tcgtccagtc tatagagttg caggagaagc 300
cggacctggc tgagagccca aaggagtcaa ggtcgaagtt ttttcatccc aagccagttc 360
cgggtttcca ggtagcctac gtggtgttcc agaagccaag tggggtgtca gcggccttgg 420
ccctgaaggg ccccctgctg gtgtccacag agagccaccc tgtgaagagt ggcattcaca 480
agtggatcag tgactacgca gactctgtgc ccgaccctga ggccctgagg gtggaagtgg 540
acacgttcat ggaggcatat gaccagaaga tcgctgagga agaagctaag gccaaggagg 600
aggaggggt ccctgacgag gagggctggg tgaaggtgac ccgccggggc cggcggcctg 660
tgctcccccg gactgaggca gccagcttgc gggtgctgga gagggagaga cggaagcgca 720
gccgaaaaga gctgctcaac ttctacgcct ggcagcatcg agagagcaag atggagcatc 780
tagcgcagct gcgcaagaag ttcgaggagg acaagcagag gatcgagctg ctgcgggccc 840
agcgcaaatt ccgaccgtac tgagctgtga gagccgcagt gaatggctgg aggtgcaggg 900
ccaggaggag gcgaggcagg gcctgcagcg gtctctgaga ggccgagctc tggccaacgg 960
gccccaggtt gaaggccacc gcgtccaaca gccccatcag agtccacaca ggccaggagg 1020
gaaggaccag gccacccctc gggtcttgtg cttcagcagt cctggggacc caggcgtgcc 1080
gagaggagga cttgtccttc ctgcttcttg cctccacacc ctcctctcca ggaccctgga 1140
tgaatccgtt ctgtgcttcc ttttccctca atgcaaaagc ccttgctggc aacgaaaaag 1200
cctcaaaagc aaaaaaaaaa a 1221

<210> 24
<211> 628
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte Clone No: 4011179

<400> 24
ggaaacccta gccgccatat ctcacgatcc actcgagcac caagccgagg gaaggtgagg 60
agcgatggcg cgcggcgtgg tgtcggcgaa gggcggcgcg gtcgcgggca agaagaaggg 120
gtcggtttcc ttcacgatcg actgcaccaa gccagtggag gacaagatca tggaggtcgc 180
ctcgctcgag aagttcctgc aggagcgcat caaggtcgcc ggcggcaagg ctggcaacct 240
cggcgactcc gtcaccatct ctcgcgagaa gaccaaggtc accgtcacct ctgacggacc 300
cttctccaag aggtacctga agtacttgac caagaagtac ttgaagaagc acaacgtgcg 360
ggattggcta cgcgtggttg ctgccaacaa ggaccgaaac gtctatgagc tccgctactt 420
caacattgct gagaacgagg gcgaggaaga agattagatt gcactacgct tatattttag 480
tattgaactc gttgcatttt gatacctgta cccgtagttt cgcaaatgtc ccatgttatg 540
gtgtggtatg gttaatttga agaatcctta tgtactgaat ctctgcaaaa agctatgttg 600
tggacagaag tgtaacgtgc cagatttt 628

<210> 25
<211> 1500
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte Clone No: 5425219

<400> 25
gtctgctaac gtagtccctc agtgcgcatc cggacgtagg aggtggaggt tgtggaattc 60
gccgttcgaa agcagggact aaaagcccca cttcgtctta cgttccgaaa ggaaggcgtc 120
tgttgagcct ttctctcagt cgtgagggag gcgtcgacgg cgtgcggaag tcctgagttg 180
aggcttgcgg gatcctttcc ggagaaagcg caggctaaag ccgcaggtga agatgtccaa 240
ctacgtgaac gacatgtggc cgggctcgcc gcaggagaag gattcgccct cgacctcgcg 300
gtcgggcggg tccagccggc tgtcgtcgcg gtctaggagc cgctcttttt ccagaagctc 360
tcggtcccat tcccgcgtct cgagccggtt ttcgtccagg agtcggagga gcaagtccag 420
gtcccgttcc cgaaggcgcc accagcggaa gtacaggcgc tactcgcggt catactcgcg 480
gagccggtcg cgatcccgca gccgccgtta ccgagagagg cgctacgggt tcaccaggag 540
atactaccgg tctccttcgc ggtaccggtc ccggtcccgt agcaggtcgc gctctcgggg 600
aaggtcgtac tgcggaaggg cgtacgcgat cgcgcgggga cagcgctact acggctttgg 660
tcgcacagtg tacccggagg agcacagcag atggagggac agatccagga cgaggtcgcg 720
gagcagaacc ccctttcgct taagtgaaaa agatcgaatg gagctgttag aaatagcaaa 780
aaccaatgca gcgaaagctc taggaacaac caacattgac ttgccagcta gtctcagaac 840
tgttccttca gccaaagaaa caagccgtgg aataggtgta tcaagtaatg gtgcaaagcc 900
tgaaaaatca tgaatgtggt ctgcagacat tgatgaagaa aatctgttgc tgtcggaaaa 960
ggtaacagaa gatggaactc gaaatcccaa tgaaaaacct acccagcaaa gaagcatagc 1020
ttttagctct aataattctg tagcaaagcc aatacaaaaa tcagctaaag ctgccacaga 1080
agaggcatct tcaagatcac caaaaataga tcagaaaaaa agtccatatg gactgtggat 1140
acctatctaa aagaagaaaa ctgatggcta agtttgcatg aaaactgcac tttattgcaa 1200
gttagtgttt ctagcattat cccatccctt tgagccattc aggggtactt gtgcatttaa 1260
aaaccaacac aaaaagatgt aaatacttaa cactcaaata ttaacatttt aggtttctct 1320
tgcagatatg agagatagca cagatggacc aaaggttatg cacaggtggg agtcttttgt 1380
atatagttgt aaatattgtc ttggttatgt aaaaatgaaa ttttttagac acagtaattg 1440
aactgtattc ctgttttgta tatttaataa atttcttgtt ttcattctta aaaaaaaaaa 1500

<210> 26
<211> 1143
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte Clone No: 5522684

<400> 26
gaccacgtgg cctccgagca gctcagggcg cccttgaaag ttcttggatc tgcgggttat 60
ggccggtccc ttgcagggcg gtggggcccg ggccctggac ctactccggg gcctgccgcg 120
tgtgagcctg gccaacttaa agccgaatcc cggctccaag aaaccggaga gaagaccaag 180
aggtcggaga agaggtagaa aatgtggcag aggccataaa ggagaaaggc aaagaggaac 240
ccggccccgc ttgggctttg agggaggcca gactccattt tacatccgaa tcccaaaata 300
cgggtttaac gaaggacata gtttcagacg ccagtataag cctttgagtc tcaatagact 360
gcagtatctt attgatttgg gtcgtgttga tcctagtcaa cctattgact taacccagct 420
tgtcaatggg agaggtgtga ccatccagcc acttaaaagg gattatggtg tccagctggt 480
tgaggagggt gctgacacct ttacggcaaa agttaatatt gaagtacagt tggcttcaga 540
actagctatt gctgccattg aaaaaaatgg tggtgttgtt actacagcct tctatgatcc 600
aagaagtctg gacattgtat gcaaacctgt tccattcttt cttcgtggac aacccattcc 660
aaaaagaatg cttccaccag aagaactggt accatattac actgatgcaa agaaccgtgg 720
gtacctggcg gatcctgcca aatttcctga agcacgactt gaactcgcca ggaagtatgg 780

```
ttatatctta cctgatatca ctaaagatga actcttcaaa atgctctgta ctaggaagga 840
tccaaggcag attttctttg gtcttgctcc aggatgggtg gtgaatatgg ccgataagaa 900
aatcctaaaa cctacagatg aaaatctcct taagtattat acctcatgaa ttcccgtcca 960
aggaagcaga gttgttaaag agtactggaa taggggctga aggatctata ttcccttatt 1020
gcattttcct tatgtataat tttccagatg gtgatgttac ttttcagtgt actcatatgt 1080
ctcattttca tctaaaatta aatggcagga aacaaggact gcatagagaa aaaaaaaaaa 1140
aaa                                                               1143
```

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 00/16644

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C12N15/12 C12N5/10 C07K14/47 C12N15/00 A01K67/027
C12Q1/68 C07K16/18 A61K38/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C07K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
STRAND, EPO-Internal, WPI Data, BIOSIS

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WILSON R ET AL: "2.2 MB OF CONTIGUOUS NUCLEOTIDE SEQUENCE FROM CHROMOSOME III OF C. ELEGANS" NATURE,GB,MACMILLAN JOURNALS LTD. LONDON, vol. 368, no. 6466, 3 March 1994 (1994-03-03), pages 32-38, XP002029739 ISSN: 0028-0836 the whole document ---	1
A	WO 98 23744 A (INCYTE PHARMA INC ;BANDMAN OLGA (US); GOLI SURYA K (US)) 4 June 1998 (1998-06-04) the whole document ---	1

-/--

[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in annex.

° Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
17 January 2001	25. 04. 2001

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	CHAMBONNET, F

Form PCT/ISA/210 (second sheet) (July 1992)

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	EMBL ACCESSION NUMBER Q9Y2Z6; SEQUENCE CHARACTERISATION CGI-07 PROTEIN. Homo sapiens (Human). DT 01-NOV-1999 (TrEMBLrel. 12, Created) Lin W.-C.; "Comparative gene cloning: Identification of novel human genes with C. elegans proteome as template."; XP002157664 the whole document -----	1

INTERNATIONAL SEARCH REPORT

rnational application No.
PCT/US 00/16644

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

see further information sheet invention group1.

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest.

☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: partially 1-27

An isolated polypeptide comprising an amino acid sequence selected from the group consisting of:
a) an amino acid sequence consisting of SEQ ID NO:1,
b) a naturally occuring amino acid sequence having at least 90% sequence identity to SEQ ID NO:1,
c) a biologically active fragment of an amino acid sequence consisting in SEQ ID NO:1,
d) an immunogenic fragment of an amino acid sequence consisting in SEQ ID NO:1;an isolated polynucleotide encoding said polypeptide or consisting of SEQ ID NO:14; a cell transformed with such a recombinant polynucleotide; a transgenic organism comprising said recombinant polynucleotide; an isolated antibody which specifically bins to said polypeptide; an hybridization method for detecting a target said polynucleotide; a pharmaceutical composition comprising an effective amount of said polypeptide and a pharmaceutically acceptable excipient; methods for screening agonists, antagonists, binding compounds , of said polypeptide and pharmaceutical compositions comprising an effective amount thereof and a pharmaceutically acceptable excipient; method for treating a disease or condition associated with an altered expression of said functional polypeptide using said pharmaceutical compositions;

2. Claims: partially 1-27

An isolated polypeptide comprising an amino acid sequence selected from the group consisting of:
a) an amino acid sequence consisting of SEQ ID NO:2,
b) a naturally occuring amino acid sequence having at least 90% sequence identity to SEQ ID NO:2,
c) a biologically active fragment of an amino acid sequence consisting in SEQ ID NO:2,
d) an immunogenic fragment of an amino acid sequence consisting in SEQ ID NO:2;an isolated polynucleotide encoding said polypeptide or consisting of SEQ ID NO:15; a cell transformed with such a recombinant polynucleotide; a transgenic organism comprising said recombinant polynucleotide; an isolated antibody which specifically bins to said polypeptide; an hybridization method for detecting a target said polynucleotide; a pharmaceutical composition comprising an effective amount of said polypeptide and a pharmaceutically acceptable excipient; methods for screening agonists, antagonists, binding compounds , of said polypeptide and pharmaceutical compositions comprising an effective amount thereof and a pharmaceutically acceptable excipient; method for treating a disease or condition associated with an altered expression of said functional polypeptide using said pharmaceutical compositions;

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

3. Claims: partially 1-27

An isolated polypeptide comprising an amino acid sequence selected from the group consisting of:
a) an amino acid sequence consisting of SEQ ID NO:3,
b) a naturally occuring amino acid sequence having at least 90% sequence identity to SEQ ID NO:3,
c) a biologically active fragment of an amino acid sequence consisting in SEQ ID NO:3,
d) an immunogenic fragment of an amino acid sequence consisting in SEQ ID NO:3;an isolated polynucleotide encoding said polypeptide or consisting of SEQ ID NO:16; a cell transformed with such a recombinant polynucleotide; a transgenic organism comprising said recombinant polynucleotide; an isolated antibody which specifically bins to said polypeptide; an hybridization method for detecting a target said polynucleotide; a pharmaceutical composition comprising an effective amount of said polypeptide and a pharmaceutically acceptable excipient; methods for screening agonists, antagonists, binding compounds , of said polypeptide and pharmaceutical compositions comprising an effective amount thereof and a pharmaceutically acceptable excipient; method for treating a disease or condition associated with an altered expression of said functional polypeptide using said pharmaceutical compositions;

4. Claims: partially 1-27

An isolated polypeptide comprising an amino acid sequence selected from the group consisting of:
a) an amino acid sequence consisting of SEQ ID NO:4,
b) a naturally occuring amino acid sequence having at least 90% sequence identity to SEQ ID NO:4,
c) a biologically active fragment of an amino acid sequence consisting in SEQ ID NO:4,
d) an immunogenic fragment of an amino acid sequence consisting in SEQ ID NO:4;an isolated polynucleotide encoding said polypeptide or consisting of SEQ ID NO:17; a cell transformed with such a recombinant polynucleotide; a transgenic organism comprising said recombinant polynucleotide; an isolated antibody which specifically bins to said polypeptide; an hybridization method for detecting a target said polynucleotide; a pharmaceutical composition comprising an effective amount of said polypeptide and a pharmaceutically acceptable excipient; methods for screening agonists, antagonists, binding compounds , of said polypeptide and pharmaceutical compositions comprising an effective amount thereof and a pharmaceutically acceptable excipient; method for treating a disease or condition associated with an altered expression of said functional polypeptide using said pharmaceutical compositions;

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

5. Claims: partially 1-27

An isolated polypeptide comprising an amino acid sequence selected from the group consisting of:
a) an amino acid sequence consisting of SEQ ID NO:5,
b) a naturally occuring amino acid sequence having at least 90% sequence identity to SEQ ID NO:5,
c) a biologically active fragment of an amino acid sequence consisting in SEQ ID NO:5,
d) an immunogenic fragment of an amino acid sequence consisting in SEQ ID NO:5;an isolated polynucleotide encoding said polypeptide or consisting of SEQ ID NO:18; a cell transformed with such a recombinant polynucleotide; a transgenic organism comprising said recombinant polynucleotide; an isolated antibody which specifically bins to said polypeptide; an hybridization method for detecting a target said polynucleotide; a pharmaceutical composition comprising an effective amount of said polypeptide and a pharmaceutically acceptable excipient; methods for screening agonists, antagonists, binding compounds , of said polypeptide and pharmaceutical compositions comprising an effective amount thereof and a pharmaceutically acceptable excipient; method for treating a disease or condition associated with an altered expression of said functional polypeptide using said pharmaceutical compositions;

6. Claims: partially 1-27

An isolated polypeptide comprising an amino acid sequence selected from the group consisting of:
a) an amino acid sequence consisting of SEQ ID NO:6,
b) a naturally occuring amino acid sequence having at least 90% sequence identity to SEQ ID NO:6,
c) a biologically active fragment of an amino acid sequence consisting in SEQ ID NO:6,
d) an immunogenic fragment of an amino acid sequence consisting in SEQ ID NO:6;an isolated polynucleotide encoding said polypeptide or consisting of SEQ ID NO:19; a cell transformed with such a recombinant polynucleotide; a transgenic organism comprising said recombinant polynucleotide; an isolated antibody which specifically bins to said polypeptide; an hybridization method for detecting a target said polynucleotide; a pharmaceutical composition comprising an effective amount of said polypeptide and a pharmaceutically acceptable excipient; methods for screening agonists, antagonists, binding compounds , of said polypeptide and pharmaceutical compositions comprising an effective amount thereof and a pharmaceutically acceptable excipient; method for treating a disease or condition associated with an altered expression of said functional polypeptide using said pharmaceutical compositions;

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

7. Claims: partially 1-27

An isolated polypeptide comprising an amino acid sequence selected from the group consisting of:
a) an amino acid sequence consisting of SEQ ID NO:1,
b) a naturally occuring amino acid sequence having at least 90% sequence identity to SEQ ID NO:1,
c) a biologically active fragment of an amino acid sequence consisting in SEQ ID NO:1,
d) an immunogenic fragment of an amino acid sequence consisting in SEQ ID NO:1;an isolated polynucleotide encoding said polypeptide or consisting of SEQ ID NO:21; a cell transformed with such a recombinant polynucleotide; a transgenic organism comprising said recombinant polynucleotide; an isolated antibody which specifically bins to said polypeptide; an hybridization method for detecting a target said polynucleotide; a pharmaceutical composition comprising an effective amount of said polypeptide and a pharmaceutically acceptable excipient; methods for screening agonists, antagonists, binding compounds , of said polypeptide and pharmaceutical compositions comprising an effective amount thereof and a pharmaceutically acceptable excipient; method for treating a disease or condition associated with an altered expression of said functional polypeptide using said pharmaceutical compositions;

8. Claims: partially 1-27

An isolated polypeptide comprising an amino acid sequence selected from the group consisting of:
a) an amino acid sequence consisting of SEQ ID NO:8,
b) a naturally occuring amino acid sequence having at least 90% sequence identity to SEQ ID NO:8,
c) a biologically active fragment of an amino acid sequence consisting in SEQ ID NO:8,
d) an immunogenic fragment of an amino acid sequence consisting in SEQ ID NO:8;an isolated polynucleotide encoding said polypeptide or consisting of SEQ ID NO:214; a cell transformed with such a recombinant polynucleotide; a transgenic organism comprising said recombinant polynucleotide; an isolated antibody which specifically bins to said polypeptide; an hybridization method for detecting a target said polynucleotide; a pharmaceutical composition comprising an effective amount of said polypeptide and a pharmaceutically acceptable excipient; methods for screening agonists, antagonists, binding compounds , of said polypeptide and pharmaceutical compositions comprising an effective amount thereof and a pharmaceutically acceptable excipient; method for treating a disease or condition associated with an altered expression of said functional polypeptide using said pharmaceutical compositions;

9. Claims: partially 1-27

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

An isolated polypeptide comprising an amino acid sequence selected from the group consisting of:
a) an amino acid sequence consisting of SEQ ID NO:9,
b) a naturally occuring amino acid sequence having at least 90% sequence identity to SEQ ID NO:9,
c) a biologically active fragment of an amino acid sequence consisting in SEQ ID NO:9,
d) an immunogenic fragment of an amino acid sequence consisting in SEQ ID NO:9;an isolated polynucleotide encoding said polypeptide or consisting of SEQ ID NO:22; a cell transformed with such a recombinant polynucleotide; a transgenic organism comprising said recombinant polynucleotide; an isolated antibody which specifically bins to said polypeptide; an hybridization method for detecting a target said polynucleotide; a pharmaceutical composition comprising an effective amount of said polypeptide and a pharmaceutically acceptable excipient; methods for screening agonists, antagonists, binding compounds , of said polypeptide and pharmaceutical compositions comprising an effective amount thereof and a pharmaceutically acceptable excipient; method for treating a disease or condition associated with an altered expression of said functional polypeptide using said pharmaceutical compositions;

10. Claims: partially 1-27

An isolated polypeptide comprising an amino acid sequence selected from the group consisting of:
a) an amino acid sequence consisting of SEQ ID NO:10,
b) a naturally occuring amino acid sequence having at least 90% sequence identity to SEQ ID NO:10,
c) a biologically active fragment of an amino acid sequence consisting in SEQ ID NO:10,
d) an immunogenic fragment of an amino acid sequence consisting in SEQ ID NO:10;an isolated polynucleotide encoding said polypeptide or consisting of SEQ ID NO:23; a cell transformed with such a recombinant polynucleotide; a transgenic organism comprising said recombinant polynucleotide; an isolated antibody which specifically bins to said polypeptide; an hybridization method for detecting a target said polynucleotide; a pharmaceutical composition comprising an effective amount of said polypeptide and a pharmaceutically acceptable excipient; methods for screening agonists, antagonists, binding compounds , of said polypeptide and pharmaceutical compositions comprising an effective amount thereof and a pharmaceutically acceptable excipient; method for treating a disease or condition associated with an altered expression of said functional polypeptide using said pharmaceutical compositions;

11. Claims: partially 1-27

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

An isolated polypeptide comprising an amino acid sequence selected from the group consisting of:
a) an amino acid sequence consisting of SEQ ID NO:11,
b) a naturally occuring amino acid sequence having at least 90% sequence identity to SEQ ID NO:11,
c) a biologically active fragment of an amino acid sequence consisting in SEQ ID NO:11,
d) an immunogenic fragment of an amino acid sequence consisting in SEQ ID NO:11;an isolated polynucleotide encoding said polypeptide or consisting of SEQ ID NO:24; a cell transformed with such a recombinant polynucleotide; a transgenic organism comprising said recombinant polynucleotide; an isolated antibody which specifically bins to said polypeptide; an hybridization method for detecting a target said polynucleotide; a pharmaceutical composition comprising an effective amount of said polypeptide and a pharmaceutically acceptable excipient; methods for screening agonists, antagonists, binding compounds , of said polypeptide and pharmaceutical compositions comprising an effective amount thereof and a pharmaceutically acceptable excipient; method for treating a disease or condition associated with an altered expression of said functional polypeptide using said pharmaceutical compositions;

12. Claims: partially 1-27

An isolated polypeptide comprising an amino acid sequence selected from the group consisting of:
a) an amino acid sequence consisting of SEQ ID NO:12,
b) a naturally occuring amino acid sequence having at least 90% sequence identity to SEQ ID NO:12,
c) a biologically active fragment of an amino acid sequence consisting in SEQ ID NO:12,
d) an immunogenic fragment of an amino acid sequence consisting in SEQ ID NO:12;an isolated polynucleotide encoding said polypeptide or consisting of SEQ ID NO:25; a cell transformed with such a recombinant polynucleotide; a transgenic organism comprising said recombinant polynucleotide; an isolated antibody which specifically bins to said polypeptide; an hybridization method for detecting a target said polynucleotide; a pharmaceutical composition comprising an effective amount of said polypeptide and a pharmaceutically acceptable excipient; methods for screening agonists, antagonists, binding compounds , of said polypeptide and pharmaceutical compositions comprising an effective amount thereof and a pharmaceutically acceptable excipient; method for treating a disease or condition associated with an altered expression of said functional polypeptide using said pharmaceutical compositions;

13. Claims: partially 1-27

An isolated polypeptide comprising an amino acid sequence

selected from the group consisting of:
a) an amino acid sequence consisting of SEQ ID NO:13,
b) a naturally occuring amino acid sequence having at least 90% sequence identity to SEQ ID NO:13,
c) a biologically active fragment of an amino acid sequence consisting in SEQ ID NO:13,
d) an immunogenic fragment of an amino acid sequence consisting in SEQ ID NO:13;an isolated polynucleotide encoding said polypeptide or consisting of SEQ ID NO:26; a cell transformed with such a recombinant polynucleotide; a transgenic organism comprising said recombinant polynucleotide; an isolated antibody which specifically bins to said polypeptide; an hybridization method for detecting a target said polynucleotide; a pharmaceutical composition comprising an effective amount of said polypeptide and a pharmaceutically acceptable excipient; methods for screening agonists, antagonists, binding compounds , of said polypeptide and pharmaceutical compositions comprising an effective amount thereof and a pharmaceutically acceptable excipient; method for treating a disease or condition associated with an altered expression of said functional polypeptide using said pharmaceutical compositions;

INTERNATIONAL SEARCH REPORT

[redacted]tion on patent family members

[redacted]tional Application No
[redacted]/US 00/16644

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9823744 A	04-06-1998	US 5962226 A	05-10-1999
		AU 7410598 A	22-06-1998